APPENDIX L: GUIDE FOR REVIEW OF DNA DATA

QUALITY ASSURANCE PROGRAM DNA TYPING OF BIOLOGICAL MATERIALS - FORENSIC BIOLOGY SECTION PROCEDURE MANUAL, SECTION VI

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Guide for Review of DNA Data

Extraction worksheet

- Samples extracted from low to hi
- Knowns extracted separately from unknowns
- Appropriate reagent blanks used
- Extraction method specified

BioMek worksheet

- Lot #s recorded
- Samples & controls in proper location
- Plate control results documented, if data not included
- Operator actions initialed

AluQuant worksheet

- Operator actions initialed
- Calculated quantitations accurate
- Extrapolated values recorded for >4ng/ul samples
- Proper documentation present if STD curve adjusted
- Lot #s / Expiration dates recorded

Reagent/Amplification worksheet

- Lot # s & expiration dates recorded
- Dilution/Amplification date recorded
- TC#&QC date recorded

Product gel/dilutions worksheet

- Lot #s recorded
- Interpretation results recorded
- Photograph/scan present and appropriately labeled
- Loading volume appropriate, if recorded
- Dilutions recorded, if not documented elsewhere

Gel Data worksheet

- Lot #s recorded
- Gel prep and run parameters
- Proper controls
- Gel loaded in accordance with protocol
- Sizing lanes designed, if applicable

Scanned images

- Scanning parameters printed, if possible
- Gel #documented

Final images

- Scanning parameters printed, if possible
- Gel # documented
- Lanes labeled

- BT bands addressed, if not done so in STaRCall
- Controls evaluated, proper action taken if expected values not obtained

Look-up tables

- Gel#documented
- bp values accurate
- Microvariant documented, if appropriate

STaRCall worksheets

- Gel # documented
- Lane designations accurate
- BT, ART, ??, and ST designations accurate
- Out of range values addressed including loci

Landscape worksheet

- Gel # documented
- Controls evaluated, proper action taken if expected values not obtained
- Changes match STaRCall
- INC loci on STaRCall addressed on landscape
- Verified against gel image, including intensity differences
- Differences in calls between sizers addressed

2rd sizer look-up tables, STaRCall, Landscape

- Gel # documented
- Consistent with examiner data.
- Landscape verified by examiner

CODIS search result printouts

- Staff index search conducted, if appropriate
- Local and state search sheets included, if appropriate
- Proper indices searched
- Matches properly evaluated and documented
- Appropriate allele values used

Specimen detail report printouts

- All appropriate samples entered into CODIS
- Appropriate specimen nomenclature used
- Appropriate specimen category assigned
- Source ID appropriately chosen, if applicable
- Correct alleles entered for specimen
- Reported NDIS suitability consistent with data entry

Statistics

- Appropriate calculation used
- For LR, appropriate assumptions made
- Correct allele entered
- Sample description/identification listed
- Reported value listed on printout.